101. A New Coral-inhabiting Barnacle, Pyrgoma orbicellae n. sp.

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While examining cirripeds associated with corals in this laboratory, I found numerous specimens of a *Pyrgoma* which were imbedded in *Orbicella vercipora* (Lamarck). In its external appearance, this cirriped resembles *Pyrgoma conjugatum* Darwin and *Pyrgoma crenatum* Sowerby so much that it is rather hard to distinguish it from them by mere external examination. But all of the specimens are larger than any other species of *Pyrgoma* or its allied genus *Creusia* which have hitherto been examined by me. Besides, the shell, especially the opercular valve, shows enough distinctive peculiarity, so that there seems to be no room for doubting that the cirriped belongs to a new species. *Pyrgoma orbicellae* is the name which I propose here for the new species.

The shell is oval, usually large and coloured dull dirty purple, but may be wholly white. The surface is nearly flat and provided with moderately prominent, narrow, approximate ridges radiating from the orifice which is moderately large and usually oval, rarely elongate-oval. The ridges, which are sometimes wholly encrusted by the coral, are numerous and variable according to the size of the shell, e.g.

Longest diameter of shell (mm.)	17	17	15.5	15.5	15	14.5
Longest diameter of orifice (mm.)	6	5	5.5	5.2	4.3	5
Number of radiating ridges	91	64	71	63	60	60

The walls are thick and porose. The sheath descends close to the base of the walls; its surface is coarsely striated transversely, and near the carinal end the lines are abruptly upturned on each side, as in *Pyrgoma conjugatum.* The base forms a long and large cylinder, measuring about 70 milimeters in the longest specimen before me.

The scutum and tergum are calcified together without any trace of suture between. Six species of this genus have fused scutum and tergum. Of these two species (*P. monticulariae* Gray and *P. elongatum* Hiro) have elongated opercular valves, whereas the remaining four (*P. conjugate* Darwin, *P. grande* Sowerby junr., *P. kuri* Hoek and *P. indicum* Annandale) have subtriangular or square valves. In the shape

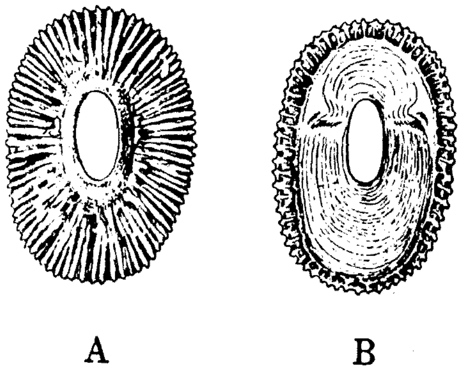

Fig. 1. A. External view of the shell; B. Internal view of the shell. (both ×2)

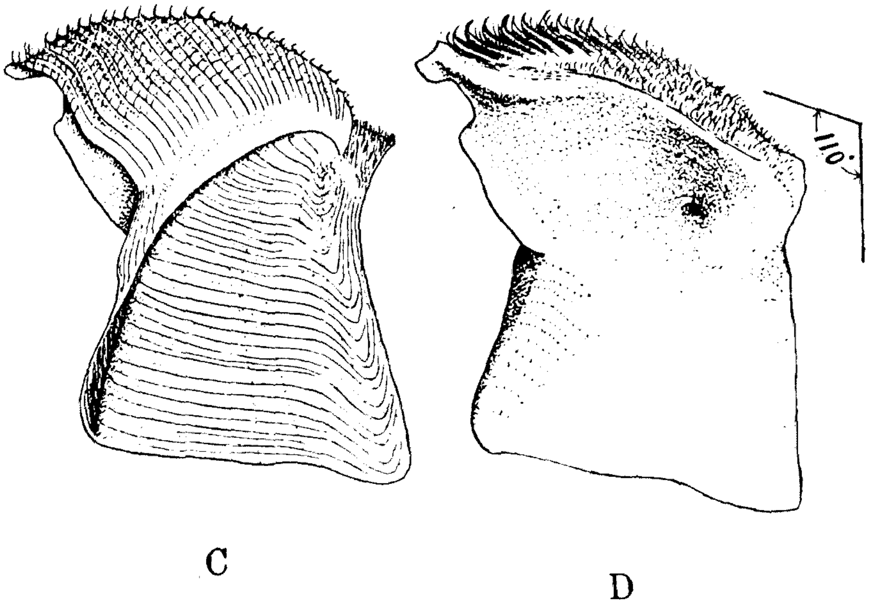

Fig. 2. C. External view of the fused scutum and tergum; D. Internal view of the fused scutum and tergum. (both ×6)

of the opercular valves the present species belongs to the latter group, while in the fused scutum and tergum this species resembles *P. grande* and also *P. indicum* as figured by Annandale, but it differs from them in the following features.

The scutum is very broad and triangular in shape. The occludent margin is coarsely toothed and concave, with the tip retroverted towards the tip of the tergum. The adductor ridge or plate which runs nearly parallel to the basal margin is poorly developed and extends below the basal margin to a distance as long as one-fifth of the height of the valve. The basal margin of the adductor plate is slightly sinuous, but conspicuously hollowed out towards the occludent corner of the valve so as to reach the basal margin of the valve. The cavity for the adductor muscle is clearly defined.

The tergum is much broader and nearly square; it is demarcated from the scutum by a very prominent ridge running from the apex. There is no trace of spur. The basal margin forms with the carinal margin an angle slightly more pointed than the basi-scutal angle which is nearly square, both margins being nearly straight. The occludent ledge (limbus occludens) is narrow and its corner forms an angle of about 110°. This angle is apparently one of the constant characters separating various species of this genus from one another.